

Quad I	Acreage	Lot Number	Population Density	Population Density Per Acre	Quad III	Acreage	Lot Number	Population Density	Population Density Per Acre
Residential	257	474	1,422	5.53	Residential	231	246	738	3.19
Multifamily	0	0	0	0.00	Multifamily	14	160	400	28.57
NonResidential	19	0	259	13.63	NonResidential	235	0	3,290	14.00
Water Tank Site	0	0	0	0.00	Water Tank Site	1	1	0	0.00
Flood Plain	36	0	0	0.00	Flood Plain	154	0	0	0.00
Gas Wells	137	0	0	0.00	Gas Wells	242	0	0	0.00
Undevelopable Subtotal*	449	474	1,681	3.74	Undevelopable Subtotal*	877	407	4,428	5.05
Dev Residential	28	100	300	10.71	Dev Residential	94	129	387	4.12
Dev Multifamily	0	0	0	0.00	Dev Multifamily	0	0	0	0.00
Dev NonResidential	693	0	9,695	13.99	Dev NonResidential	1,248	0	17,478	14.00
Flood Plain	-36	0	-504	14.00	Flood Plain	-154	0	-2,156	14.00
Gas Wells	-137	0	-1,918	14.00	Gas Wells	-242	0	-3,388	14.00
Developable Subtotal**	548	100	7,573	13.82	Developable Subtotal**	946	129	12,321	13.02
Total	997	574	9,254	9.28	Total	1,823	536	16,749	9.19

* Undevelopable Subtotal = Lot areas already developed plus flood plain plus gas well buffers.
** Developable Subtotal = Lot areas not developed or planned for development minus flood plain and gas well buffers and their associated area population estimate.

SOUTH MAIN PARTICIPATION PERCENTAGES							
Line Segment		Fort Worth	Haslet	Fort Worth Qreq (gpm)	Haslet Qreq (gpm)	Fort Worth %	Haslet %
Segment D	Point F to C	Quad I	30% Quad II	1,920.24	91.42	95.46%	4.54%
Segment C	Point A to B	Quad III	LeTara	3,175.31	284.70	91.77%	8.23%
Segment B	Point B to C	Quad III	Quad IV & LeTara	3,175.31	633.77	83.36%	16.64%
Segment A	Point C to D	Quad I & III	Quads II & IV & LeTara	5,095.56	938.52	84.45%	15.55%
Proposed improvment 15" 24"-10/12/2023	Point D to E			5,096.00	3,221.00	61.27%	38.73%
TRA Meter Location revised from point A to G	Point G					100.00%	0.00%

		LeTara	Quad I**	Quad II	Quad III**	Quad IV inc LeTara	Quads I & II	Quads III & IV	Quads I thru IV
Total Drainage Area (acres)	T _{D Area} =	167.00	997.00	255.00	1,823.00	402.00	1,252.00	2,225.00	3,477.00
Dwelling Units Per Acre	U =	2.00	2.86	1.41	2.83	2.00	2.56	2.68	2.64
Total Dwelling Units	T _{units} =	334.00	2,847.38	359.55	5,153.54	804.00	3,206.93	5,957.54	9,164.47
Capita/Dwelling Unit	C =	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25
Total Capita Population	T _{Pop} =	1,085.50	9,254.00	1,168.54	16,749.00	2,613.00	10,422.54	19,362.00	29,784.54
Average Load (gal/(capita*day)	A _{load} =	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Load (gpm)	L =	75.38	642.64	81.15	1,163.13	181.46	723.79	1,344.58	2,068.37
Total Population in Thousands (Capita/1000)	P =	1.09	9.25	1.17	16.75	2.61	10.42	19.36	29.78
Design Load Multiple	M =	3.78	2.99	3.76	2.73	3.49	2.94	2.67	2.48
Design Load Required (gpm)	Q _{reqd,gpm} =	284.70	1,920.24	304.74	3,175.31	633.77	2,125.62	3,585.49	5,130.19
Design Load Required (MGD)	Q _{reqd,MGD} =	0.41	2.77	0.44	4.57	0.91	3.06	5.16	7.39
South Main Design Slope (ft/ft)	S =	0.50%	0.30%	0.50%	0.57%	0.50%	0.50%	0.50%	0.50%
South Main Design Pipe (inches)	D =	8	18	8	18	10	18	21	24
Hydraulic Radius (inches)	R _h =	2	4.5	2	4.5	2.5	4.5	5.25	6
Manning Coefficient	n =	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013
Available Flow (gpm)	Q _{available,gpm} =	386.66	2,603.49	386.66	3,588.66	701.06	3,361.09	5,069.96	7,238.52
Available Flow (MGD)	Q _{available,MGD} =	0.56	3.75	0.56	5.17	1.01	4.84	7.30	10.42

**Note: Quads I & II assume 10 people/acre

